a'

Fig. 3 is an example of an absorption apparatus consisting of a perforated or grid plate without weir and downcomer and a packed column in the case of treating boiler exhaust gas by the method according to the present invention.

Replace the paragraph beginning on page 4, line 34 with:

a2

Fig. 4 is an example of an absorption apparatus consisting of a combination of two perforated or grid plates without weir and downcomer and a packed column in the case of treating boiler exhaust gas by the method according to the present invention.

Replace the paragraph beginning on page 6, line 32 with:

a3

As explained above, the present invention successfully uses a gas-liquid contact apparatus equipped inside thereof with an absorption column containing at least one perforated plate and at least one type of packing materials with a packing height of at least 0.5 m, preferably 0.5 m to 4 m (e.g., RASCHIG™ rings, pole rings, Terralets, interlock saddles, etc.) and introduces seawater from the top of the gas-liquid contact apparatus or introduces seawater from the top of the gas-liquid contact apparatus so as to cause countercurrent gas liquid contact with the gas to be treated and to use the alkali in the seawater to effectively and advancely remove the sulfur oxides contained in the exhaust gas.

Replace the paragraph beginning on page 7, line 8 with:

a4

Note that the technology for treatment of an exhaust gas using a perforated plate or grid plate column without weir and downcomer (i.e. ""MORETANA™" column) is disclosed in Japanese Examined Patent Publication (Kokoku) No. 5131036 and

Japanese Examined Patent Publication (Kokoku) No. 60-18208 (or U.S. Patent Nos. 3892837 and 3941572) but the present inventors found that the operating regions A and B (see Fig. 1) already shown there is not suited for the treatment of exhaust gas utilizing seawater. The above-mentioned JP-A-11-290643 proposed the need for the ratio L/G of the flow rate of gas G supplied to the column and the flow rate L of seawater to be at least 3.6, preferably 7 to 25, and for the superficial gas velocity Ug passing through the ""MORETANA™" column and the flow rate L of the treatment liquid to be the relation in the region C of Fig. 1, that is, in the range from more than 3.43 $L^{-0.0807}$•Ugm (m/sec) to 8 (m/sec) where Ugm is the maximum permitted superficial gas velocity. However, the outside of this range, particularly when Ug is too low, there is the problem that the efficiency of gas-liquid contact drastically falls and it becomes impossible to remove the acidic component. However, according to the present invention, by utilizing an absorption apparatus composed of a combination of a "MORETANA™" column and a packing column, the desired gas-liquid absorption is effectively performed even in the region D of Fig. 1 and the highly efficient desulfurization treatment becomes possible.

Replace the paragraph beginning on page 10, line 16 with:

As explained above, according to the present invention, it is possible to advancely and effectively treat the sulfur oxides contained in an exhaust gas with seawater, despite the region being unable to be treated by "MORETANA™" column in the past, that is, a low Ug, and possible to protect the environment simply and with a compact equipment and low cost.